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EXAMINER

TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

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DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/332,273

Applicant(s)

MIENTUS ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 81-89, 91-99, 101-104, 107-110, 113 and 115-118 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 81-89, 91-99, 101-104, 107-110, 113, 115-118 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

1. Amendment filed on June 12, 2003 has been entered. Claims 90, 100, 105, 106, 111, 112 and 114 have been cancelled. New claims 115-118 have been added. Claims 81-89, 91-99, 101-104, 107-110, 113, 115-118 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 81-85, 91-95, 101-104, 107, 108, 113** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of EP 569878.

As to claims 81-84, 92-94, 102, 103, 107, 113, Mueller discloses a multilayer thermoplastic film (See Abstract) comprising a thermoplastic core layer 2 having a first side and a second side (See Fig. I), the core layer 2 comprising (See column 5, lines 10-22):

(a) 10-80% linear low density polyethylene (LLDPE) having a density of from 0.910 to 0.925 grams per cubic centimeter (See column 3, lines 57-62; column 5, lines 63-64) or 10-80 % linear medium density polyethylene (LMDPE) having a density of from 0.926 to 0.940 (See column 3, lines 63-68);

(b) 10-80 % ionomer resin such as Surlyn 1601 (See column 6, lines 47-50); and

(c) 10-80 % ethylene vinyl acetate (EVA) (See column 4, lines 1-4);

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first and second thermoplastic skin layers 1, 3 comprising 70-90 % ethylene propylene copolymers (EPC) blended with 10-30% LLDPE or LMDPE (See column 5, lines 28-29, 41-47) overlying the first side and the second side of the core layer 2 (See Fig. I; column 5, lines 41-47) so that a composition of the core layer 2 is different than a composition of the skin layers 1, 3, and the core layer 2 and the skin layers 1, 3 are characterized by the absence of PVC. The multi-layer film is coextrudate (unoriented), which is *then* oriented (See column 7, lines 23-24).

As to claims 85, 91, 95, 101, 104, 108, Mueller also discloses a 5-layer thermoplastic film (See Fig. II) comprising a core layer 6 comprising formulations of the core layer 2 (See column 6, lines 11-16), intermediate layers 5, 7 comprising 20-80 % LLDPE or LMDPE and 20-80% ionomer (See column 6, lines 24-35) and skin layers 4, 8 comprising formulations of the skin layers 1, 3 (See column 6, lines 20-24). The topcoat layers 4, 8 are clear since they are made from inherently clear formulations of the layers 1, 3, namely, blends of EPC with 10-30% LLDPE or LMDPE. It is the Examiner's position that 5-layer thermoplastic film of Mueller has a structure of claimed film since it has a core layer 6, intermediate ionomer containing layers 5, 7 (which can be viewed as skin layers) on both sides of the core layer 6 and topcoat layers 4, 8 overlying the (skin) layers 5, 7.

Mueller fails to teach that the core comprises a light stabilizer at a concentration of about 1,000 to about 10,000 ppm (0.1-1 wt %) based on the weight of the of core layer (Claims 81, 93, 103); and the first skin layer comprises a light stabilizer at a concentration of about 2,000 to about 20,000 ppm (0.2-2 wt %) based on the weight of the first skin layer and the second skin layer comprises a light stabilizer at a concentration of about 1,000 to about 15,000 ppm (0.1-1.5 wt %) based on the weight of the second skin layer (Claim 103).

EP 569878 teaches that a multilayer thermoplastic laminate consisting of a core layer containing not more than 0.5 wt.% UV absorber(stabilizer), with outer layer/s containing at least 1 wt.% UV absorber on at least one side can be used for glazing and constructional applications, esp. externally where the outer layer is exposed to sunlight, e.g. in greenhouses (See Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included ultraviolet stabilizers into a core layer (e.g. in an amount of not more than 0.5 wt.%) and skin layers (e.g. in an amount of at least 1 wt.%) in a thermoplastic film of Mueller for the use in applications, where the outer layer is exposed to sunlight, with the expectation of providing the desired protection against ultraviolet light, since EP 569878 teaches that a multilayer thermoplastic laminate each layer of which contains UV absorber(stabilizer), can be used for glazing and constructional applications, esp. externally where the outer layer is exposed to sunlight.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant concentration parameters of ultraviolet stabilizers in a core and skin layers (including those of claims 81, 93, 103) in a thermoplastic film of Mueller through routine experimentation in the absence of a showing of criticality.

4. **Claims 86, 87, 96, 97** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of EP 569878, as applied above, and further in view of Josephy et al (US 5,451,283).

Mueller, as applied above, further teaches that the multilayer thermoplastic film may be combined with other polymeric materials for specific applications (See column 4, lines 35-40).

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However, Mueller/in view of EP 569878 fails to teach that for some applications a layer of a pressure sensitive adhesive overlies the second thermoplastic skin layer and a release liner overlies the layer of pressure sensitive adhesive.

Josephy et al teach that a multilayer thermoplastic film may be combined with a pressure sensitive adhesive and a release liner overlying the layer of pressure sensitive adhesive for making a multilayer film label stock (See Fig. 2; column 5, lines 15-19; column 6, lines 19-27). Inorganic fillers such as titanium dioxide may be used to provide opaque film label stock (See column 6, lines 49-51). Josephy et al further teach that polyolefin blend films are resistant to abrasion when extruded, but such resistance is degraded when the film is uniaxially oriented following extrusion. Extruded non-stretched films achieve high abrasion-resistance ratings, although their MD stiffness is too low for proper dispensing. See column 10, lines 43-59.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined an extruded multilayer thermoplastic film of Mueller in view of EP 569878 either oriented or unoriented, if high abrasion resistance is required, with a pressure sensitive adhesive and a release liner overlying the layer of pressure sensitive adhesive for making a multilayer film label stock, as taught by Josephy et al.

5. **Claims 88, 89, 98, 99, 109, 110** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of EP 569878, as applied above, and further in view of Schreck et al (US 5,716,698).

Mueller in view of in view of EP 569878, as applied above, fails to teach that the film further comprises an opacifying layer between the core layer and the second skin layer (Claims 88, 98, 109); and the opacifying layer comprises a white pigment (Claims 89, 99, 110).

Schreck et al teach that a thermoplastic packaging film can be made opaque (See column 1, lines 16-17; column 2, line 48) by adding conventional opacifying pigments such as white pigments to at least one of layers of the film (See column 3, lines 44-49, 64; column 4, lines 1-4). In other words, the secondary reference is relied upon to show that pigments can be added to a layer in a thermoplastic packaging film to make the film opaque.

Because thermoplastic packaging films can be transparent or opaque as taught by the references, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the pigments of the secondary reference of Schreck et al to at least one of layers (including a layer between the core layer and the second skin layer) in a film of the primary reference of Mueller in view of EP 569878 to make the known alternative opaque packaging film.

6. **Claims 115-118** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller (US 4,532,189) in view of Josephy et al (US 5,451,283).

Mueller, as applied above, further teaches that the heat-shrinkable thermoplastic film may be combined with other polymeric materials for specific applications (See column 4, lines 35-40). However, Mueller fails to teach that for some applications a layer of a pressure sensitive adhesive overlies the second thermoplastic skin layer and a release liner overlies the layer of pressure sensitive adhesive.

Josephy et al is applied for the same reasons as above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined an extruded multilayer thermoplastic film of Mueller in view of EP 569878 either oriented or unoriented, if high abrasion resistance is required, with a pressure

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sensitive adhesive and a release liner overlying the layer of pressure sensitive adhesive for making a multilayer film label stock, as taught by Josephy et al.

Response to Arguments

7. Applicant's arguments with respect to claims 81-89, 91-99, 101-104, 107-110, 113, 115-118 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elena Tsoy

Elena Tsoy
Examiner
Art Unit 1762

July 9, 2003